

Main

Commercial Status	Commercialised
Range of product	Zelio Time
Product or component type	Modular timing relay
Discrete output type	Relay
Component name	RE11R
Time delay type	Ad Ah N O P Pt T Tt W
Time delay range	0.1...1 s 1...10 h 1...10 min 1...10 s 10...100 h 6...60 min 6...60 s
[Us] rated supply voltage	24...240 V AC 50/60 Hz 24 V DC
Nominal output current	8 A

Complementary

Contacts material	AgNi (cadmium free)
Width pitch dimension	17.5 mm
Control type	Selector switch on front panel
Voltage range	0.85...1.1 Us
Connections - terminals	Screw terminals, clamping capacity: 2 x 2.5 mm ² + 1 x 4 mm ² with cable end Screw terminals, clamping capacity: 2 x 1.5 mm ² without cable end
Housing material	Self-extinguishing
Repeat accuracy	+/- 0.5 % conforming to IEC 61812-1
Temperature drift	+/- 0.05 %/°C
Voltage drift	+/- 0.2 %/V
Setting accuracy of time delay	+/- 10 % of full scale at 25 °C conforming to IEC 61812-1
Minimum pulse duration	30 ms 100 ms with load in parallel
Maximum reset time	100 ms on de-energisation
On-load factor	100 %
Maximum power consumption	32 VA 240 V
Maximum power consumption	1.5 W 240 V 0.6 W 24 V
Minimum switching current	10 mA
Maximum switching current	8 A
Maximum switching voltage	250 V AC 150 V DC
Breaking capacity	2000 VA
Breaking capacity	80 W
Electrical durability	100000 cycles 8 A at 250 V resistive
Mechanical durability	5000000 cycles

[Uimp] rated impulse withstand voltage	5 kV for 1.2...50 µs conforming to IEC 61812-1 5 kV for 1.2...50 µs conforming to IEC 60664-1
Marking	CE
Creepage distance	4 kV/3 conforming to IEC 60664-1
Surge withstand	2 kV (common mode) conforming to IEC 61000-4-5 level 3 1 kV (differential mode) conforming to IEC 61000-4-5 level 3
Mounting support	35 mm symmetrical mounting rail conforming to EN 50022
Local signalling	LED indicator green pulsing: relay energised, no timing in progress (except functions Di-D) LED indicator green on steady: relay energised, no timing in progress LED indicator green flashing: timing in progress
Product weight	0.06 kg

Environment

Immunity to microbreaks	> 10 ms
Dielectric strength	2.5 kV 1 mA/1 minute 50 Hz conforming to IEC 61812-1
Standards	73/23/EEC 89/336/EEC 93/68/EEC EN 50081-1/2 EN 50082-1/2 IEC 60669-2-3 IEC 61812-1
Product certifications	CSA CULus GL
Ambient air temperature for storage	-30...60 °C
Ambient air temperature for operation	-20...60 °C
IP degree of protection	IP50 (front panel) conforming to IEC 60529 IP40 (housing) conforming to IEC 60529 IP20 (terminal block) conforming to IEC 60529
Vibration resistance	0.35 mm (f = 10...55 Hz) conforming to IEC 60068-2-6
Relative humidity	93 % without condensation conforming to IEC 60068-2-3
Resistance to electrostatic discharge	8 kV (in air) conforming to IEC 61000-4-2 level 3 6 kV (in contact) conforming to IEC 61000-4-2 level 3
Resistance to electromagnetic fields	10 V/m, 80 MHz to 1 GHz conforming to IEC 61000-4-3 level 3 10 V/m, 80 MHz to 1 GHz conforming to ENV 50140/204 level 3
Resistance to fast transients	2 kV, direct conforming to IEC 61000-4-4 level 3 1 kV, capacitive connecting clip conforming to IEC 61000-4-4 level 3
Immunity to radioelectric fields	10 V (0.15...80 MHz) conforming to ENV 50141 (IEC 61000-4-6)
Immunity to voltage dips	95 %/5 s conforming to IEC 61000-4-11 60 %/100 ms conforming to IEC 61000-4-11 30 %/10 ms conforming to IEC 61000-4-11
Disturbance radiated/conducted	Class B conforming to EN 55022 (EN 55011 group 1)

Contractual warranty

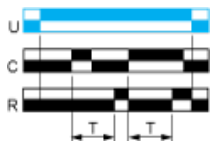
Period	18 months
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Function Ad : Pulse Delayed Relay with Control Signal

Description

After power-up, pulsing or maintaining of control contact C starts the timing T.
 At the end of this timing period T, the output R closes.
 The output R will be reset the next time control contact C is pulsed or maintained.

Function: 1 Output



Function Ah : Pulse Delayed Relay (Single Cycle) with Control Signal

Description

After power-up, pulsing or maintaining of control contact C starts the timing T. A single cycle then starts with 2 timing periods T of equal duration (start with output in rest position).
 Output R closes at the end of the first timing period T and reverts to its initial position at the end of the second timing period T.
 Control contact C must be reset in order to re-start the single flashing cycle.

Function: 1 Output



Function N : Retriggerable Interval Relay with Control Signal On

Description

After power-up and an initial control pulse C, the output R closes.
 If the interval between two control pulses C is greater than the set timing period T, timing elapses normally and the output R closes at the end of the timing period. If the interval is not greater than the set timing period, the output R remains closed until this condition is met.

Function: 1 Output



Function O : Retriggerable Interval Delayed Relay with Control Signal On

Description

An initial timing period T begins on energisation. At the end of this timing period, the output R closes.
 As soon as there is a control pulse C, the output R reverts to its initial state until the interval between two control pulses is less than the value of the set timing period T. Otherwise, the output R closes at the end of the timing period T.

Function: 1 Output



Function P : Pulse Delayed Relay with Fixed Pulse Length

Description

The timing period T begins on energisation.

At the end of this period, the output R closes for a fixed time P.

Function: 1 Output



P = 500 ms

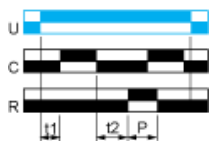
Function Pt : Pulse Delayed Relay (Summation and Fixed Pulse Length) with Control Signal Off

Description

On energisation, timing period T starts (it can be interrupted by operating the Gate control contact G).

At the end of this period, the output R closes for a fixed time P.

Function: 1 Output



$T = t1 + t2 + \dots$

P = 500 ms

Function T : Bistable Relay with Control Signal On

Description

After power-up, pulsing or maintaining of control contact C switches the output on.

A second pulse on the control contact C switches the output R off.

Function: 1 Output



Function Tt : Retriggerable Bistable Relay with Control Signal On

Description

After power-up, pulsing or maintaining of control contact C switches output R on and starts timing T.

The output switches off at the end of the timing period T or following a second pulse on the control contact C.

Function: 1 Output



Function W : Interval Relay with Control Signal Off

Description

After power-up and opening of the control contact, the output(s) close(s) for a timing period T.

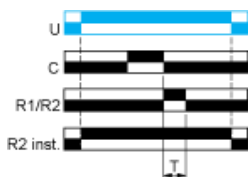
At the end of this timing period the output(s) revert(s) to its/their initial state.

The second output can be either timed or instantaneous.

Function: 1 Output




Function: 2 Outputs




2 timed outputs (R1/R2) or 1 timed output (R1) and 1 instantaneous output (R2 inst.).

Legend

 Relay de-energised

 Relay energised

 Output open

 Output closed

C Control contact

G Gate

R Relay or solid state output

R1/ 2 timed outputs

R2

R2 The second output is instantaneous if the right position is selected inst.

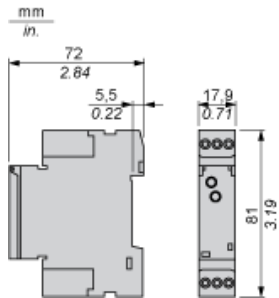
T Timing period

Ta Adjustable On-delay

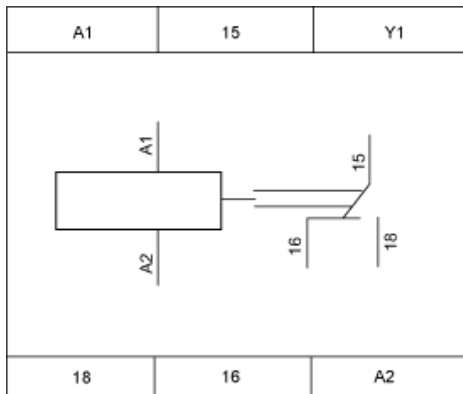
Tr Adjustable Off-delay

U Supply

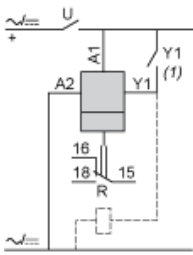
Width 17.5 mm



Internal Wiring Diagram



Wiring Diagram



1) Contact Y1:

- Control for functions B, C, Ac, Bw, Ad, Ah, N, O, W, T, Tt.
- Partial stop for functions At, Ht and Pt.
- Function D if Di selected.
- Not used for functions A, H and P.